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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,342

01/27/2005

Donald Horton

020512.0005US

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34284

7590

05/30/2006

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EXAMINER

FISHMAN, MARINA

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/523,342

Applicant(s)

HORTON ET AL.

Examiner

Marina Fishman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/05/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

General status

1. This is a Final Action on the Merits. Claims 1 - 12 are pending in the case and are being examined.

Claim Objections

2. Claims 1 – 9 are objected to because of the following informalities: The preamble of Claim 1, “a rotary switch mounted above and below a panel” is not consistent with the preamble of dependent claims 2 - 8. Claim 3 and 7 recites “the spring”. There is no antecedent basis for this limitation in each of the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 9 – 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Lemire [US 6,225,580].

Regarding Claims 1 and 12 Lemire discloses a panel mounted rotary switch assembly [panel not shown, thread 60 and nut 61 for mounting to the panel are shown] the switch being mounted above and below the panel, comprising:

- a detent subassembly [12, 40, 54], having a spring [40]; and

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- a knob [57] that substantially covers the detent sub-assembly [Figure 5].

Regarding Claim 9, Lemire discloses the detent sub-assembly is on the user side of the panel. Regarding Claim 10, the method steps are also disclosed by Lemire; the user can select circuit by rotating the knob, the balls connecting pattern on circuit board [16]. Regarding Claim 11, the wire connected to the circuit board [Figure 6] will affect the circuit underside of the panel.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 - 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler et al. [US 4,625,084] in view of Tanaka et al. [US 4,857,677].

Regarding Claim 1 Fowler et al. disclose a panel mounted rotary switch assembly with panel [31], tongues [140] with barbs [141] are inserted into the panel opening [Figures 1- 3] comprising a detent subassembly [23, 24, 25], having a single spring [127].

Regarding Claim 1, Fowler et al. disclose the instant claimed invention except for a knob that substantially covers the detent sub-assembly. Tanaka et al. disclose a knob [44, Figure 3] that substantially covers the detent sub-assembly. It would have been obvious to one having ordinary skill in the art at

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the time the invention was made to provide the knob that substantially covers the detent sub-assembly in Fowler et al., as suggested by Tanaka et al., so that the detent sub-assembly can be rotated by less force.

Regarding Claim 2, the operation of the switch of Fowler et al. is not altered by since removal of the knob. Regarding Claim 3, Fowler et al. disclose arrangement with a single ball with leaf spring and a single ball. It would have been obvious to provide two balls, one at each end and replacing the leaf spring with a coil spring, would be an obvious matter of design choice, so as to make operation smoother. Regarding Claim 4, the balls are confined in the detent sub-assembly area, hence will not extend into the panel.

Regarding Claims 5 and 6, Fowler et al. disclose instant claimed invention except for shaft extending through the panel and printed circuit board located below the panel. Tanaka et al. disclose printed circuit board [12] located below the panel [11]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide shaft extending through the panel and printed circuit board below the panel in Fowler et al., as suggested by Tanaka et al., in order to reduce the switch height above the panel.

7. Claims 3 - 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemire [US 6,225,580] in view of Allison et al. [US 3,311,718].

Regarding Claim 3 - 8, Lemire discloses the instant claimed invention except for spring coupled to two balls, one at each end of the spring; shaft that extends through the panel; circuit board located below the panel; and sprocket with cylindrical lobes. Allison et al. disclose detent assembly with two balls [34],

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one at each end of the spring [35], sprocket with lobe [36]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide spring coupled to two balls, one at each end of the spring; shaft that extends through the panel; circuit board located below the panel; and sprocket with cylindrical lobes in Lemire, as suggested by Allison, so that the switch height above the panel can be reduced. Regarding Claim 4, the balls are confined in the detent sub-assembly area, and will not extend into the panel.

Response to Arguments

8. Applicant's arguments with respect to claims 1 - 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is 571-272-1991. The examiner can normally be reached on 7-5 M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marina Fishman
May 22, 2006

Handwritten signature
R. Lee
AU 2832
5/22/06